Appln. No.: 10/501,564

Amendment Dated: December 13, 2005

Reply to Office Action of: September 13, 2005

<u>Amendments to the Claims:</u> This listing of claims will replace all prior versions, and listings, of claims in the application

Listing of Claims:

1. (Currently Amended) A method of managing mobility of a mobile terminal on at least one domain network including a plurality of subnets, comprising:

determining a home agent determining step for thea mobile terminal to perform location management of the mobile terminal, wherein the mobile terminal hashaving communications with an access point apparatus arranged on a subnet configuring a domain network and moving moves between the subnets and the at least one domain networks which are different in service form, to carry out location management of the mobile terminal;

registering a main home address by a step for the mobile terminal to register a main home address given provided from thea main home agent apparatus to a server for managing an address of an apparatus the mobile terminal to have a connection to the at least one domain network; and

registering a sub-home address a sub-home address registering step forto the main home agent apparatus, as a care of address, for use on another domain network different in service form, when the mobile terminal moves to theanother other domain network different in service form, to register as a care of address a sub-home address for use on a moved in domain network wherein the sub-home address is registered as the care of address for use on the other domain network for a specified time period.

- 2. (Original) A method of managing mobility according to claim 1, wherein the mobile terminal previously stores information about a home agent apparatus to become a candidate for the main home agent apparatus.
- 3. (Currently Amended) A method of managing mobility according to claim 1, further comprising a step of acquiring byfor the mobile terminal to acquire the information about a home agent apparatus to become a candidate for the main home agent apparatus from the domain network.
- 4. (Currently Amended) A method of managing mobility according to claim 2, further comprising a step forof acquiring by the mobile terminal to acquire the information

Appln. No.: 10/501,564

Amendment Dated: December 13, 2005

Reply to Office Action of: September 13, 2005

about a home agent apparatus to become a candidate for the main home agent apparatus from the domain network.

- 5. (Currently Amended) A method of managing mobility according to claims 1, wherein, in the home agent determining step of determining the home agent, the mobile terminal changes over, as required, the main home agent apparatus from based on the information about a home agent apparatus.
- 6. (Currently Amended) A method of managing mobility according to claims 2, wherein, in the home agent determining step of determining the home agent, the mobile terminal changes over, as required, the main home agent apparatus based on from the information about a home agent apparatus.
- 7. (Currently Amended) A method of managing mobility according to claims 3, wherein, in the home agent determining step of determining the home agent, the mobile terminal changes over, as required, the main home agent apparatus from based on the information about a home agent apparatus.
- 8. (Currently Amended) A method of managing mobility according to claims 1, wherein, in the home agent determining step of determining the home agent, the mobile terminal determines the main home agent apparatus from the information about a home agent apparatus, based on the basis of a preference indicator as one of the information.
- 9. (Currently Amended) A method of managing mobility according to claims 2, wherein, in the home agent determining—step of determining the home agent, the mobile terminal determines the main home agent apparatus from the information about a home agent apparatus, based on the basis of a preference indicator as one of the information.
- 10. (Currently Amended) A method of managing mobility according to claims 3, wherein, in the home agent determining step of determining the home agent, the mobile terminal determines the main home agent apparatus from the information about a home agent apparatus, based on the basis of a preference indicator as one of the information.
- 11. (Currently Amended) A method of managing mobility according to claims 1, wherein, in the home agent determining step of determining the home agent, the mobile

Appln. No.: 10/501,564 MAT-8574US

Amendment Dated: December 13, 2005

Reply to Office Action of: September 13, 2005

terminal determines the main home agent apparatus from the information about a home agent apparatus, <u>based</u> on the basis of an access frequency to the home agent apparatus.

- 12. (Currently Amended) A method of managing mobility according to claims 2, wherein, in the home agent determining step of determining the home agent, the mobile terminal determines the main home agent apparatus from the information about a home agent apparatus, based on the basis of an access frequency to the home agent apparatus.
- 13. (Currently Amended) A method of managing mobility according to claims 3, wherein, in the home agent determining step of determining the home agent, the mobile terminal determines the main home agent apparatus from the information about a home agent apparatus, based on the basis of an access frequency to the home agent apparatus.
- 14. (Currently Amended) A method of managing mobility according to claims 1, further comprising a registration request step of making a request for a registration to the home agent apparatus arranged in a domain network to be connected through one or more a link layers, placed in an effective state at least one of the link layers being placed in an operational state to at an opportunity of capable of acquiringacquire an IP address, of link layers possessed by the mobile terminal at least one of which turns from a non-effective state into an effective state, wherein, the step of registering the sub-home address registering step is carried outperformed when the registration request is granted by the home agent apparatus.
- 15. (Currently Amended) A method of managing mobility according to claims 2, further comprising a registration request step of making a request for a registration to the home agent apparatus arranged in a domain network to be connected through one or more a link layers, placed in an effective state at least one of the link layers being placed in an operational state to at an opportunity of capable of acquiring acquire an IP address, of link layers possessed by the mobile terminal at least one of which turns from a non-effective state into an effective state, wherein, the step of registering the sub-home address registering step is carried outperformed when the registration request is granted by the home agent apparatus.
- 16. (Currently Amended) A method of managing mobility according to claims 3, further comprising a registration request step of making a request for a registration to the home agent apparatus arranged in a domain network to be connected through one or more a link layers, placed in an effective state at least one of the link layers being placed in an operational

Appln. No.: 10/501,564

Amendment Dated: December 13, 2005

Reply to Office Action of: September 13, 2005

state to at an opportunity of capable of acquiringacquire an IP address, of link layers possessed by the mobile terminal at least one of which turns from a non-effective state into an effective state, wherein, the step of registering the sub-home address registering step is carried outperformed when the registration request is granted by the home agent apparatus.

- 17. (Currently Amended) A method of managing mobility according to claims 5, further comprising a registration request step of making a request for a registration to the home agent apparatus arranged in a domain network to be connected through one or more a link layers, placed in an effective state at least one of the link layers being placed in an operational state to at an opportunity of capable of acquiringacquire an IP address, of link layers possessed by the mobile terminal at least one of which turns from a non-effective state into an effective state, wherein, the step of registering the sub-home address registering step is carried outperformed when the registration request is granted by the home agent apparatus.
- 18. (Currently Amended) A method of managing mobility according to claims 7, further comprising a registration request step of making a request for a registration to the home agent apparatus arranged in a domain network to be connected through one or more a link layers, placed in an effective state at least one of the link layers being placed in an operational state to at an opportunity of capable of acquiringacquire an IP address, of link layers possessed by the mobile terminal at least one of which turns from a non-effective state into an effective state, wherein, the step of registering the sub-home address registering step is carried outperformed when the registration request is granted by the home agent apparatus.
- 19. (Currently Amended) A method of managing mobility according to claims 11, further comprising a registration request step of making a request for a registration to the home agent apparatus arranged in a domain network to be connected through one or more a link layers, placed in an effective state at least one of the link layers being placed in an operational state to at an opportunity of capable of acquiringacquire an IP address, of link layers possessed by the mobile terminal at least one of which turns from a non-effective state into an effective state, wherein, the step of registering the sub-home address registering step is carried outperformed when the registration request is granted by the home agent apparatus.

Appln. No.: 10/501,564

Amendment Dated: December 13, 2005

Reply to Office Action of: September 13, 2005

20. (Currently Amended) A mobile terminal <u>for use with at least one domain network</u> including a plurality of <u>subnets</u> comprising:

a main home agent selecting section for selecting a main home agent apparatus to askrequest location management and making a request for registering a home address given provided from the main home agent apparatus to a server for managing an address of an apparatus the mobile terminal to be connected to the at least one domain network;

a mobile IP processing section for notifying, when the mobile terminal has moved to a domain network different in service form, a sub-home agent apparatus for asking-requesting location management on a moved-in the other domain network different in service form of a home address for use on the other moved-in domain network different in service form together with a care of address for use on a subnet of within—the moved-inother domain network different in service form, on the basis of based on a mobile IP protocol, wherein the sub-home address is registered as the care of address for use on the other domain network for a specified time period; and

a home agent registering section for notifying the main home agent apparatus of the main home address and a sub-home address for use on the moved-in-the other domain network different in service form.

- 21. (Currently Amended) A mobile terminal according to claim 20, further comprising a home domain storing section for storing a home agent list as information about a home agent apparatus to become a candidate for the main home agent apparatus, wherein the main home agent selecting section selects athe main home agent apparatus from the home agent list.
- 22. (Currently Amended) A mobile terminal according to claim 21, wherein the main home agent selecting section acquires information about athe home agent apparatus from the domain network and store it information about the home agent apparatus to the home domain storing section.
- 23. (Currently Amended) A mobile terminal according to claim 21, wherein the main home agent selecting section changes—over, as required, the main home agent apparatus <u>based</u> on information from the home agent list stored in the home domain storing section.

Appln. No.: 10/501,564

Amendment Dated: December 13, 2005

Reply to Office Action of: September 13, 2005

24. (Currently Amended) A mobile terminal according to claim 22, wherein the main home agent selecting section changes—over, as required, the main home agent apparatus <u>based</u> on information from the home agent list stored in the home domain storing section.

- 25. (Currently Amended) A mobile terminal according to claim 21, wherein the main home agent selecting section selects the main home agent apparatus from the home agent list stored in the home domain storing section, on the basis of a priority as one of information about a home agent apparatus.
- 26. (Currently Amended) A mobile terminal according to claim 22, wherein the main home agent selecting section selects the main home agent apparatus from the home agent list stored in the home domain storing section, on the basis of a priority as one of information about a home agent apparatus.
- 27. (Original) A mobile terminal according to claim 21, wherein the main home agent selecting section selects as the main home agent apparatus a home agent apparatus having an access frequency equal to or greater than a predetermined value from the home agent list stored in the home domain storing section.
- 28. (Original) A mobile terminal according to claim 22, wherein the main home agent selecting section selects as the main home agent apparatus a home agent apparatus having an access frequency equal to or greater than a predetermined value from the home agent list stored in the home domain storing section.
- 29. (Currently Amended) A mobile terminal according to—any—of claims 20, wherein the home agent registering section makes a request for registration to a sub-home agent apparatus through one or morea link layers, at least one of the link layers being placed in an operational state turned from a non-effective state into an effective state so that, when receiving a grant for the registration request by the sub-home agent apparatus, started is a notification of a sub-home address to the main home agent apparatus is started.
- 30. (Currently Amended) A mobile terminal according to any of claims 21, wherein the home agent registering section makes a request for registration to a sub-home agent apparatus through one or morea link layers, at least one of the link layers being placed in an operational state turned from a non-effective state into an effective state so that, when

Appln. No.: 10/501,564

Amendment Dated: December 13, 2005

Reply to Office Action of: September 13, 2005

receiving a grant for the registration request by the sub-home agent apparatus, started is a notification of a sub-home address to the main home agent apparatus is started.

- 31. (Currently Amended) A mobile terminal according to—any of claims 22, wherein the home agent registering section makes a request for registration to a sub-home agent apparatus through one or morea link layers, at least one of the link layers being placed in an operational state turned from a non-effective state into an effective state so that, when receiving a grant for the registration request by the sub-home agent apparatus, started is a notification of a sub-home address to the main home agent apparatus is started.
- 32. (Currently Amended) A mobile terminal according to any of claims 23, wherein the home agent registering section makes a request for registration to a sub-home agent apparatus through one or morea link layers, at least one of the link layers being placed in an operational state turned from a non-effective state into an effective state so that, when receiving a grant for the registration request by the sub-home agent apparatus, started is a notification of a sub-home address to the main home agent apparatus is started.
- 33. (Currently Amended) A mobile terminal according to any of claims 25, wherein the home agent registering section makes a request for registration to a sub-home agent apparatus through one or morea link layers, at least one of the link layers being placed in an operational state turned from a non-effective state into an effective state so that, when receiving a grant for the registration request by the sub-home agent apparatus, started is a notification of a sub-home address to the main home agent apparatus is started.
- 34. (Currently Amended) A mobile terminal according to any of claims 27, wherein the home agent registering section makes a request for registration to a sub-home agent apparatus through one or morea link layers, at least one of the link layers being placed in an operational state turned from a non-effective state into an effective state so that, when receiving a grant for the registration request by the sub-home agent apparatus, started is a notification of a sub-home address to the main home agent apparatus is started.
- 35. (Currently Amended) A mobile terminal according to claims 20, wherein the mobile IP processing section, when receiving a multi-encapsulated packet, takes a source address described in an innermost header as a destination of registering location.